NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

CONSERVATION COVER

(Acre)

CODE 327

DEFINITION

Establishing and maintaining permanent vegetative cover.

PURPOSES

This practice may be applied to accomplish one or more of the following:

- Reduce soil erosion and sedimentation
- Improve water quality
- Improve air quality
- Enhance wildlife habitat
- Improve soil quality
- Manage plant pests

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all land needing permanent vegetative cover. This practice does not apply to plantings for forage production or to critical area plantings.

CRITERIA

General Criteria Applicable to All Purposes

Species shall be adapted to soil, ecological site and climate conditions.

Species planted shall be suitable for the planned purpose and site conditions. Select species to meet the operator's long-term objectives for erosion control, seed production, livestock forage, wildlife habitat or soil improvement.

Seeding rates and methods shall be adequate to accomplish the planned purpose.

Planting dates, planting methods and care in handling and planting the seed or planting stock shall ensure that planted materials have an acceptable rate of survival. Refer to Idaho Plant Materials Technical Notes No. 10 and 24.

Only viable, high quality and adapted seed or planting stock shall be used. Certified seed shall be used when available. Legume seed shall be inoculated with the proper rhizobia bacteria before planting.

Based on seed tags, adjust seeding rates to insure the required amount of pure live seed (PLS) is applied to the site. Refer to Idaho Plant Materials Technical Note No. 4.

Site preparation shall be sufficient to eliminate or control weeds, allowing for the establishment and growth of selected seeded or planted species.

Vegetative manipulation will be accomplished by mechanical, biological or chemical methods, by prescribed burning or a combination of the four. If burning is used alone or in combination with the other methods, Prescribed Burning (338) must be included as a planned practice.

Timing and use of equipment shall be appropriate for the site and soil conditions.

All nutrients shall be applied according to the Nutrient Management (590) standard.

Use nurse crops only under irrigated conditions or high annual rainfall (16 inches or greater) areas. Seeding rates for nurse crops under dryland conditions should be no more than 30

percent of the normal seeding rate used for that crop.

When plantings are to be irrigated, maintain adequate moisture at least in the upper six (6) inches of soil during the first four (4) weeks and then in the upper 12 inches until the end of the growing season. Seedlings may be susceptible to excessive irrigation during establishment.

Pest (weeds, grasshoppers, rabbits, rodents, etc.) control will be undertaken when pests are determined to be detrimental to establishment and maintenance of stands. Any control specified shall be in accordance with the Pest Management (595) standard.

Additional Criteria to Reduce Soil Erosion and Sedimentation

The amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective shall be determined using the current approved wind and/or water erosion prediction technology.

Additional Criteria for Improving Air Quality

In perennial crop systems such as orchards, vineyards, berries and nursery stock, vegetation established shall provide full ground coverage in the alleyway during mowing and harvest operations to minimize the generation of particulate matter.

To sequester carbon, plant cover established will result in a positive CO_2 equivalent value when determined by the current approved carbon prediction technology.

Additional Criteria To Enhance Wildlife Habitat

Grasses, forbs, legumes and/or shrubs shall be planted in diverse mixes to promote biodiversity and meet the needs of targeted species of wildlife.

Additional Criteria to Improve Soil Quality

Plants will be selected on the basis of producing high volumes of organic material to maintain or improve soil organic matter. The amount of biomass needed will be determined using the current soil condition index procedure.

Additional Criteria to Manage Plant Pests

In perennial crop systems such as orchards, vineyards, berries and nursery stock, permanent vegetative cover shall be established and managed according to the University of Idaho's Integrated Pest Management (IPM) recommendations for the target pest species, found at (http://www.ag.uidaho.edu/pmc/Pests/cropPests.htm).

CONSIDERATIONS

This practice may be used to promote the conservation of wildlife species in general, including threatened and endangered species.

Mowing may be needed during the establishment period to reduce the competition from broadleaf annual weeds.

On sites where annual grasses are an expected weed problem, it may be necessary to postpone nitrogen fertilizer application until the planted species are well established.

Where applicable, this practice may be used to conserve and stabilize archeological and historic sites.

Consider rotating management and maintenance activities (e.g. mow only one-fourth or one-third of the area each year) throughout the managed area to maximize spatial and temporal diversity.

Where wildlife management is an objective, the food and cover value of the planting can be enhanced by using a habitat evaluation procedure to aid in selecting plant species and providing or managing for other habitat requirements necessary to achieve the objective.

When appropriate, use native species to begin the process of re-establishing the native plant community for the site.

If a native cover (other than what was planted) establishes, and this cover meets the intended purpose and the landowner's objectives, the cover should be considered adequate.

When a nurse crop is used, consider harvesting the nurse crop as hay, and manage according to moisture conservation practices and light requirements of seedlings to aid seeding establishment.

In wind erosion areas, consider a temporary cover crop to control erosion. Clip, mow or use appropriate herbicide to control cover crops so they do not produce seed.

Consider planting grasses, forbs, legumes and/or shrubs that attract and provide food and cover habitat for pollinators and beneficial insects. Refer to Idaho Biology Technical Note No. 1, Pollinators and Idaho Plant Materials Technical Note No. 2, Plants for Pollinators in the Intermountain West.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. They shall include, but are not limited to, recommended species, seeding rates and dates, establishment procedures and other management actions needed to insure an adequate stand.

Specifications shall be recorded using ID-CPA-025 specification sheet and narrative statements in the conservation plan or other acceptable documentation.

Seeding rates on irrigated land may be increased to 150 percent of the rates specified in Idaho Plant Materials Technical Note No. 24.

Actual seeding rates applied will be within 80 – 125 percent of rate expressed in seeding specification ID-CPA-025.

Generally accepted planting dates are:

MLRA	Spring* (before)	Fall** (before)	Dormant*** (after)
8	4/1	10/1	11/15
9	4/15	9/20	11/1
10	5/15	9/10	10/20
11	4/15	9/20	11/1
12	5/15	9/20	11/1
13	5/15	9/10	10/20
25	5/15	9/10	10/20
28A	5/1	9/20	11/1
43A	5/15	9/1	10/20
43B	5/15	9/1	10/20
43C	5/15	9/1	10/20
44	5/15	9/1	11/1
47	5/15	9/10	10/20

Seeding dates may vary from these guidelines based on local experience and conditions.
* Complete spring plantings as early as possible.
** Fall seedings on irrigated land only.
*** Earlier dormant planting dates are acceptable if the measured soil temperature is below 45 degrees F.

For shrub and tree plantings, refer to Tree and Shrub Establishment (612) and Idaho Plant Materials Technical Notes No. 24, 32, 41 and 43.

OPERATION AND MAINTENANCE

Maintenance practices and activities shall not disturb cover and nesting habitat during the reproductive period for grassland wildlife species. Exceptions should be considered for periodic burning, mowing and light tillage when necessary to maintain the health of the plant community.

Maintenance measures must be adequate to control noxious weeds and other invasive species to prevent proliferation and spreading to adjacent fields.

Mowing and harvest operations in perennial crop systems such as orchards, vineyards, berries and nursery stock shall be done in a manner which minimize the generation of particulate matter.

Stands not grazed or disturbed over long periods may become decadent, low in vigor and accumulate excess residue, resulting in poor stand health and may need periodic treatment

such as light tillage, mowing, prescribed fire or grazing.

To benefit insect food sources for grassland nesting birds, spraying or other control of noxious weeds shall be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife.

Any use of fertilizers, pesticides and other chemicals shall not compromise the stand or intended purpose of the planting, and shall be applied in accordance with an appropriate management plan. Refer to Nutrient Management (590) and/or Pest Management (595) standards.

Methods of weed control used shall be designed to protect the soil resource from erosion.

REFERENCES

K. G. Renard, G. R. Foster, G. A. Weesies, K. D. K. McCool and D. C. Yoder. 1997. *Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE)*, Agricultural Handbook Number 703.

NRCS - Idaho Biology Technical Note No. 1 – Pollinators

NRCS – Idaho Plant Materials Technical Notes:

No. 2 – Plants for Pollinators

No. 4 – Reading Seed Packaging Labels and Calculating Seed Mixtures

No. 10 – Pasture and Range Seedings

No. 24 – Grass, Grass-Like, Forb, Legume and Woody Species for the Intermountain West

No. 32 – Native Shrubs and Trees for Riparian Areas

No. 41 – Restoration and Diversification of Plant Communities with Woody Plants

No. 43 – Tree Planting Care and Management

Revised Universal Soil Loss Equation Version 2 (RUSLE2) website: http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm

USDA. 2006. Land Resource Regions and Major Land Resource Areas of the United States, the Carribean, and the Pacific Basin. USDA Handbook 296. http://soils.usda.gov/survey/geography/mlra/